microzine™

A Computer Learning Library on a Disk™

Scholastic
The most trusted name in learning.

APPLE REFERENCE CARD

Getting Started

Equipment You Need
1. TV or monitor (Black and white will work, but color is better.)
2. 48K Apple® II Plus, Apple IIe, or Apple IIc
3. Disk drive

Apple is a registered trademark of Apple Computer, Inc.

Loading Instructions
1. Open the disk drive door.
2. Hold the disk with the label facing up.
3. Insert the disk slowly with the label facing up.
4. Close the disk drive door.
5. Turn on the computer and monitor (or TV).

NOTE: Never remove or insert a disk while the disk drive's red light is on.

If the program does not appear on the screen:
• Turn the computer off. Turn it back on and try again.
• Make sure the disk drive door is closed.
• Have someone who knows how to hook up the disk drive check
to see if it's hooked up correctly.

CONTENTS

GETTING STARTED

Read this handbook for clear instructions on how to use each *Microzine* feature. Then try everything. Experiment! You can't break the programs, so have fun. If you have any problems, come on back. You'll probably find the answers in this handbook.

Equipment You Need

1. TV or monitor (Black-and-white will work, but color is better.)
2. 48K Apple® II Plus, or Apple IIe, or Apple IIc
3. Disk drive
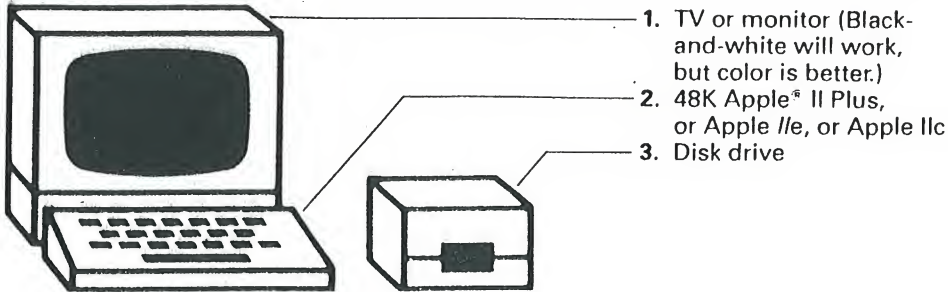
Apple is a registered trademark of Apple Computer, Inc.

NOTE: *To save your surveys in "Survey Taker" and your pictures in "City Blocks," you will need a blank disk. (See Initializing a Data Disk, page 35.)*

How to Load Microzine

1. Open the disk drive door.
2. Hold the disk with the label end facing you.
3. Insert the disk slowly with the label facing up.
4. Close the drive door.
5. Turn on the computer and monitor (or TV).

NOTE: *Never remove or insert a disk while the disk drive's red light is on.*

If *Microzine* does not appear on the screen:
• Turn the computer off. Turn it back on and try again.
• Make sure the disk drive door is closed.
• Have someone who knows how to hook up the drive check to see if it's hooked up correctly.

Using the Table of Contents

The Table of Contents is a list of programs, or features, in *Microzine*. Use this list to select the feature you want.

To get this list, follow the instructions on the opening *Microzine* screen to press any key. When the Table of Contents appears on your screen, you'll notice that the first feature is highlighted. Use the arrow keys to highlight each feature. When the feature you want to see is highlighted, press **RETURN**. (If the feature you select is on the other side of the disk, you will be told to turn the disk over and press **RETURN**.)

The feature will soon appear on the screen. Take a look at Using *Microzine*, on page 6. Then turn to the feature in this handbook.

Go ahead and choose the feature.

Using Microzine

Menus

When you are given a menu, or list of choices, use the arrow keys to highlight the choice you want. Then press **RETURN**. If the menu has numbers, type the number of your choice, then press **RETURN**.

(Y/N)

When you see (Y/N) at the end of a question, it means the computer is waiting for you to answer "yes" or "no." Type Y for yes or N for no, and press **RETURN**.

Entering Information

Whenever you are asked to enter information, simply type it in and press **RETURN**.

If you make a mistake while typing, use the ← (back arrow) key to move back, then retype correctly.

ESC to QUIT

Press **ESC** to quit what you are doing.

APPLE IIe/IIc

To use *Microzine* on the Apple *IIe* or *IIc*, press **CAPS LOCK** so that it is locked down.

BRAIN DRAIN

A Twistaventure™

Moon Scout, this is your chance to graduate to Star Scout! Your mission: locate Dr. Minar, last seen on a planet in the Folderol system. This mission won't be easy. Outer space is full of asteroids that could turn your spaceship into a piece of intergalactic Swiss cheese.

What You'll Find

As you go through the story, you will uncover information that will help you in your search for Dr. Minar.

Names

You will be asked to type in your name. You will also be asked to pick a three-digit number for your universal identification code (this code will help you on your mission). Press **RETURN** after you type in each piece of information.

Piloting Your Spacecraft

Your spaceship has a control panel that will appear on the screen. It will give you the information you need to pilot your ship.
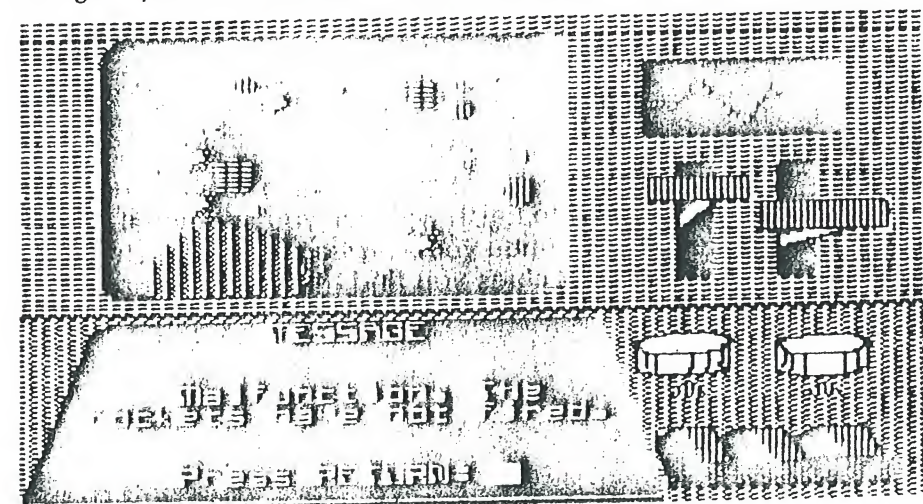
To start the blastoff-countdown, press the **SPACE BAR.** To blastoff when the countdown reaches 0, press the **SPACE BAR** and hold it down. (If you have an Apple II Plus, press the **SPACE BAR** and the **REPT** key.)

To steer and land your spaceship, use the arrow keys (on the Apple *IIe* or *IIc*), or the **I, J, K,** and **M** keys (on the Apple II Plus).

(HINT: Always land your ship gently. The ↑ arrow key activates the ship's retro-landing rockets. They will help you land gently.)

Unlocking Doors

On Octloch you will face a series of eight doors that must be unlocked. Knowing the right answer to certain questions will unlock five of the doors. For the remaining doors:

● One door has three buttons with a letter on each button. You must push the buttons in the correct order before the door will open.

● One door has a shape on it. You must use the ↑ arrow key (on a *IIe* or *IIc*) or the **I** key (on a II Plus) to fill the shape with color to the correct level.

● One door can only be unlocked if you know the right security color code and number code. Use the arrow keys to choose the correct security codes. (On the top line, the shape on the left is orange and the shape on the right is purple. On the bottom line, the shape on the left is blue and the shape on the right is green.)

Secrets and Clues

You never know when or where you might uncover a secret or discover a clue. Sometimes returning to Earth will give you additional information you may need to continue your mission. Use scratch paper to write down any secrets or clues you find that seem helpful to your mission.

SURVEY TAKER

Which rock group is the most popular among the students in your school? Do students like the cafeteria's cheeseburgers better than the chili burgers? Will girls answer these questions differently then boys? Take a survey to find out!

With "Survey Taker," you can find out how people feel about different topics or issues. Ask them questions and enter their answers, then see the survey results displayed on a survey table or bar graph.

What You'll Find

In "Survey Taker" you create surveys and store them on data disks. You can fit one survey on each data disk. You can have up to 50 questions in a survey, and each question can have up to five possible answers.
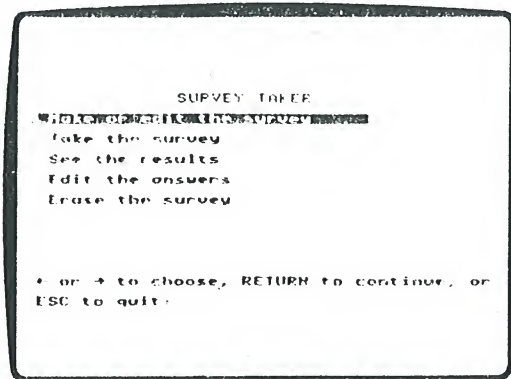
Data Disk

To use "Survey Taker" you'll need a data disk initialized by the Computer Stuff feature in *Microzine*. Now is the time to initialize a data disk. Turn to page 35 in the handbook. Then come back here.

"Survey Taker" Menu

"Survey Taker" has five functions, or things you can do: Make or edit the survey; Take the survey; See the results; Edit the answers; and Erase the survey. They are listed on the main menu.

```
               SURVEY TAKER
██▓▓▒▒▓▓█▓▒▓▒▓▓▓▓▒▓▒▓▓▓▓▓▓▒█
    Take the survey
    See the results
    Edit the answers
    Erase the survey


  ← or → to choose, RETURN to continue, or
  ESC to quit:
```

If you make a wrong choice on the main menu, press **ESC**. The computer will ask if you want to quit using "Survey Taker." Type N for no, and press **RETURN**. You will be sent back to the main menu.

Editing and Correcting Data

After you enter information, the computer will ask, "Do you want to change your data?" If you do, type Y for yes. Press **RETURN** to skip over lines you don't want to change.
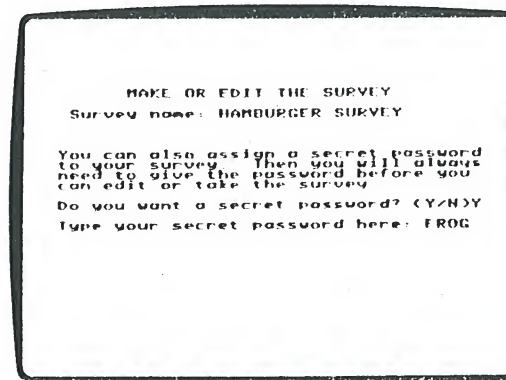
To change data, use the arrow keys to move the cursor to the first character you want to change. Change data by typing over it.

Make or Edit a Survey

Choose a name for your survey. The name can be up to 19 character long, and you can use letters or numbers. Type in your survey name, and press **RETURN**.

Secret Password

You can assign a secret password to your survey. It can be four characters long.

```
           MAKE OR EDIT THE SURVEY
        Survey name: HAMBURGER SURVEY


    You can also assign a secret password
    to your survey.  Then you will always
    need to give the password before you
    can edit or take the survey.

    Do you want a secret password? (Y/N)Y

    Type your secret password here: FROG
```

IMPORTANT: If you use a password, only people who know the password will be able to edit or erase the survey, so you must remember the password. If you think you might forget it, write it dow and keep it in a safe place.

Survey Groups

"Survey Taker" lets you question one or two groups of people for each survey. For example, you could survey your classmates about how they like the food in the school cafeteria. Then you could give the same survey to another class of students at your school, and compare their answers.

Type in 1 or 2, and then name the groups. For example, you could name one group BOYS, and the other group GIRLS.
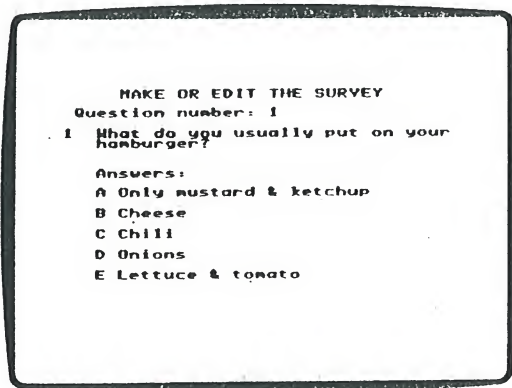
Survey Questions

Your survey can have from one to 50 questions.

The computer will ask the number of the question you want to enter. Type 1 for the first question and press **RETURN**.

Type in your question. It can be two lines long. When you finish typing your question, press **RETURN**. (If your question is only one line long, press **RETURN** twice.)

Then type in the possible answers to the question and press **RETURN** after each one. Each question can have up to five possible answers.

```
         MAKE OR EDIT THE SURVEY
      Question number: 1
    1   What do you usually put on your
        hamburger?

      Answers:
      A Only mustard & ketchup
      B Cheese
      C Chili
      D Onions
      E Lettuce & tomato
```

After you enter each question for your survey, the computer will ask "Another question?" If you want to add another question, type Y. Enter a new number for each additional question. (To change a previous question, see Editing Survey Questions and Answers, on page 00.) If you have no more questions to add, type N.

Edit the Survey

After you make a survey, you may want to change it or add questions to it. If you do, choose "Make or edit the survey" on the main menu.

The survey name will appear on the screen. If you assigned a secret password to your survey, the computer will ask you to type it in.

Your group number and name will then appear and you will be able to change them if you want to.

Editing Survey Questions and Answers

When the computer asks for the question number, type in the number of the question you want to change.

If you want to add a new survey question, you must type in a number higher than your last question. For example, if you have five questions in your survey, add more questions starting with number 6.

Take the Survey

After you have made a survey, have people take it. You can have people take your survey on the computer, or you can write down your survey, record people's answers, and then enter all the data into the computer later.

Each person will be assigned a number. The number will appear in the upper right-hand corner of the screen. You might want to keep track of the number assigned to each person in case you want to edit or erase his or her answers later. (See Edit the Answers on page 16.)

NOTE: The numbers assigned to the people taking the survey keep increasing by one, regardless of whether the people are members of Group 1 or Group 2. After the last question on the survey has been answered, you will be sent back to the main menu. If another person wants to take the survey, choose "Take the survey" again.

See the Results

"Survey Taker" can show you the results of your survey in two ways: in a table, and on a bar graph. If you have two groups taking your survey, "Survey Taker" will also compare the results of the two groups.

The computer will ask which question you want to see the results for. Type in the number of the question, and press **RETURN**.

Results in a Table

You will see the results of your survey question displayed in a table. "Number" shows you how many people chose each answer for that question. "Percent" shows the percentage of people answering that question who chose each answer.

For example, on the "Hamburger" question ("What do you usually put on your hamburger?"), two groups of students were interviewed. The groups were ten boys and ten girls.


The results for Group 1: three boys picked answer A, four picked B, zero picked C, two picked D, and one picked E. You can see that the percentages for each answer are: 30% for A, 40% for B, 0% for C, 20% for D, and 10% for E.

The results for Group 2: one girl picked A, two picked B, two picked C, zero picked D, and five picked E. Their percentages are: 10% for A, 20% for B, 20% for C, 0% for D, and 50% for E.
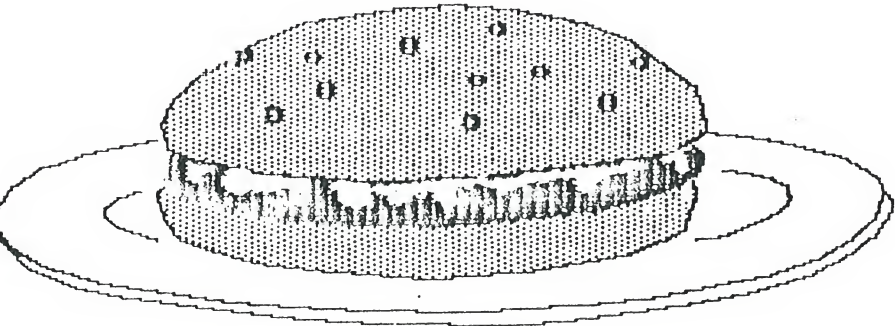
Results on a Bar Graph

To see the same results of the survey question on a bar graph, type G for graph.

When two groups take the survey, the results will be shown in two different colors. Group 1's answers are white, and Group 2's answers are purple.
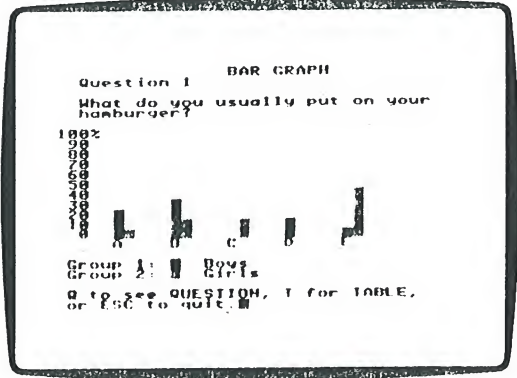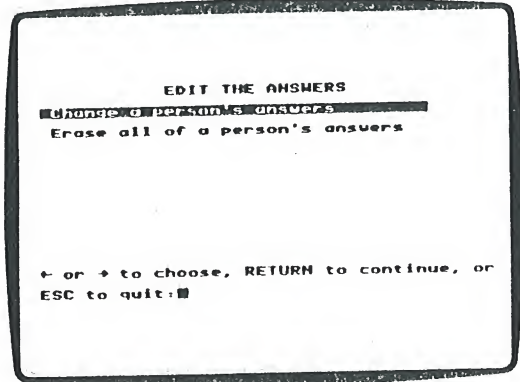

To see your question again, type Q. To see the results on a table again, type T.

Edit the Answers

Sometimes you might want to erase a person's answers from your survey, or correct a mistake a person made when he or she answered your survey. If you need to change your survey's results in any way, choose "Edit the answers" from the main menu.

```
              EDIT THE ANSWERS
  Change a person's answers
    Erase all of a person's answers




  ← or → to choose, RETURN to continue, or
  ESC to quit:█
```

Enter the secret password if you have one, and press **RETURN**.

Choose either "Change a person's answers," or "Erase all of a person's answers."

Change a Person's Answers

Enter the number of the person whose answers you want to change. The person's group number will then appear. If you want to change it, type in the new group number. If the group number is correct, press **RETURN**.

The question will appear, and the person's answer will appear at the bottom of the screen, under the flashing cursor. Type in the correct answer and press **RETURN**.

The computer will ask, "Do you want to change the answers for another person?" Type Y for yes or N for no.

Erase All of a Person's Answers

To erase all of one person's answers, type that person's number. The computer will ask if you are sure you want to erase all the answers. Type Y for yes or N for no.

Erase the Survey

If you want to erase your survey, choose "Erase the survey" on the main menu. The computer will ask, "Are you sure you want to erase the entire survey?" Type Y for yes or N for no.

Write a New Survey

There are two ways to write a new survey. You can quit the "Survey Taker" feature and return the *Microzine* disk to the disk drive. Choose "Survey Taker" again and put a new data disk in your disk drive.

Or you could put a new data disk in the drive. Erase your old survey so none of that information will appear on the new survey (see Erase the Survey, on page 17). Write your new survey on the new data disk.

See a Previous Survey

To see a previous survey, quit the "Survey Taker" feature and return the *Microzine* disk to the disk drive. Choose "Survey Taker" again and put the data disk that has the survey you want to see on it in your disk drive.

Sample Survey Questions

There are several different types of questions you can include in your survey.

Most surveys use multiple-choice questions. Here is a sample:

What is your favorite subject in school?

A. Mathematics
B. History
C. Science
D. English
E. Foreign Language

Sometimes it is a good idea to include "Other" as one of the possible choices. That way, the person answering your survey will always have one possible answer to choose. For example, look at the question below:

What color are your eyes?

A. Blue
B. Brown
C. Gray
D. Hazel
E. Other

If a person with green eyes were answering this question, he or she would choose "E."

Sometimes you might only want a yes or no answer. In that case, your question might look like this:

Do you have a computer at home?

A. Yes
B. No

Surveys sometimes test how strongly people feel about certain issues. The answers show the range of their opinions or feelings. Here is a sample:
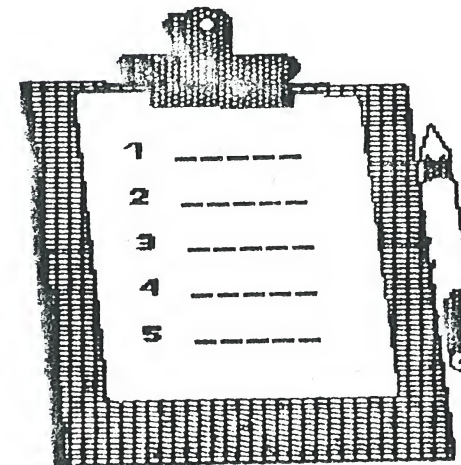
Kids under 10 years old should not be allowed to work after school.

A. Strongly agree
B. Agree
C. Undecided
D. Disagree
E. Strongly disagree

Or a question could ask for an answer within a certain range, such as age groups. Here is a sample:
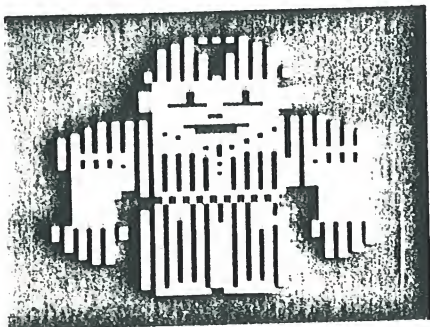
How tall are you?

A. Under 4½ feet
B. Between 4½ feet and 5 feet
C. Between 5 feet and 5½ feet
D. Between 5½ feet and 6 feet
E. Over 6 feet

CITY BLOCKS

Meet Terry, the hardworking construction worker! Together, you and Terry can build quiet, tree-lined streets or towering skyscrapers, using "City Blocks."

What You'll Find

"City Blocks" is a graphics program that lets you build city scenes with different shapes. You can make Terry pick up the shapes and move them anywhere. You can also change their colors and forms. Then save your pictures and see them whenever you want. If you have a printer with a graphics card, you can print your city scenes.

Data Disk

To save your "City Blocks" pictures, you need a data disk initialized by the Computer Stuff feature in *Microzine*. (See page 35.)

Printer

To print your pictures, you need a printer with any one of these graphics cards: GRAPPLER™, PKASO™, or SILENTYPE™.

You also have to have your printer plugged into slot 1 of your computer.

NOTE: *If you have one of the earliest versions of a PKASO graphics card, you will not be able to print your pictures.*
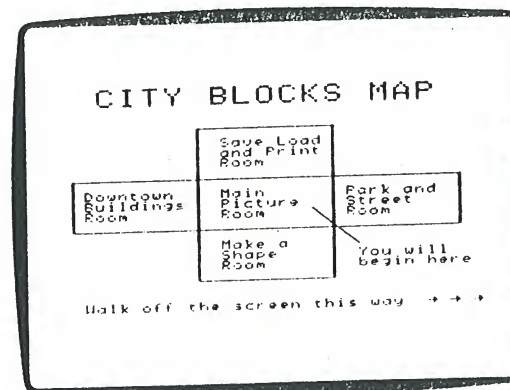
"City Blocks" Menu

The "City Blocks" menu gives you these options: Introduction, City Blocks, and Sample Picture.

If you make a wrong choice on the main menu, press **ESC**. You will be sent back to the main menu. To quit "City Blocks," press **ESC** again. The computer will ask, "Are you done with City Blocks? (Y/N)" Type Y to return to the *Microzine* Table of Contents.

Introduction

Choose Introduction on the main menu. You will learn about "City Blocks" and practice moving Terry, the construction worker, across the screen.

If you follow the arrows at the bottom of the screen, you will see a map of the "City Blocks" rooms. Then you will learn how to make Terry pick up and drop objects.

CITY BLOCKS MAP

Walk off the screen this way → → →

"City Blocks"

Choose "City Blocks" on the main menu to build your city scenes.

The Main Picture Room is where you will drop your city shapes to build a picture. Your city scene can have as many as 100 shapes.

The Downtown Buildings Room has building shapes, a radio station, a hotel, and more. Pick up any of the pieces and bring them to the Main Picture Room to build your city scene.

The Park and Street Room has cars, trucks, a hot-air balloon, a water fountain, trees, and more. Pick up any of these pieces, too, to build your city scene.

The Make a Shape Room is where you can bring shapes and change their shape or color. You can also create brand-new shapes.

The Save, Load, and Print Room lets you save your scenes on a data disk, load your scenes on a data disk, print your scenes, and catalog your data disk.
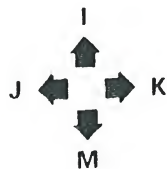
Sample Picture

Choose Sample Picture on the main menu to see one example of a "City Blocks" picture.

You will not be able to change this picture. The sample picture is just an example of a few fun things you can do with this program.

Moving Terry

Use these keys to move Terry from room to room:

(HINT: You can make Terry "run" by holding down the **I**, **J**, **K**, or **M** keys on the Apple *IIe* or *IIc*, or by holding down any of those keys plus the **REPT** key on the Apple II Plus.)

```
        I
        ⬆
  J ⬅     ➡ K
        ⬇
        M
```

Building Scenes

Move Terry to a shape room and make Terry pick up a shape. Then make Terry carry the shape to the Main Picture Room and drop it. Bring more shapes in until your picture is complete.

Picking Up and Dropping Shapes

Use the **I**, **J**, **K** or **M** keys to move Terry's right shoulder next to the shape you want to pick up. Then press the **SPACE BAR** to pick up the shape. Press it again to drop the shape.
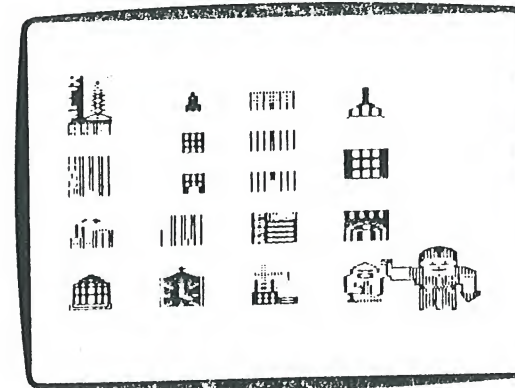
If Terry is too close to a shape, or is touching a shape, Terry will not be able to pick it up.

Supply of City Shapes

There is an endless supply of shapes in "City Blocks." If you use any shape in your picture and then move Terry back to the room where you found the shape, there will be an identical shape waiting for you there.

For example, if you pick up the hotel shape and drop it in the Main Picture Room and then go back to the Downtown Buildings Room, there will be another hotel shape there.

Too Many Shapes

You can have up to 100 shapes in any "City Blocks" picture. If you try to add another shape, that shape will disappear as soon as Terry leaves the Main Picture Room.

Make a Shape Room

You can change any shape and make new shapes, too.

Have Terry pick up the shape you want to change and move into the Make a Shape Room. Then have Terry drop the shape.

You will see the shape in a box on the right, and a bigger picture of the shape on the left. You will also see a flashing cursor in the left-hand box and the words "CURSOR IS MOVING" in the lower right-hand corner of the screen. This means that you can move the cursor over the shape without drawing.
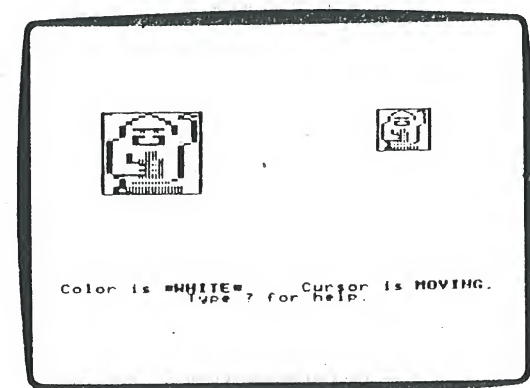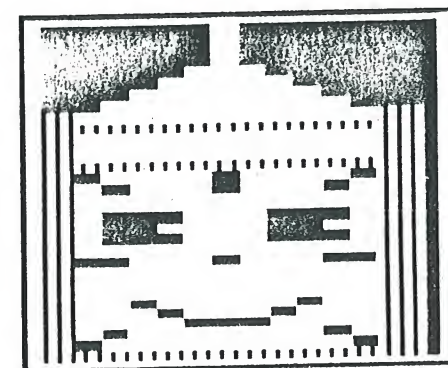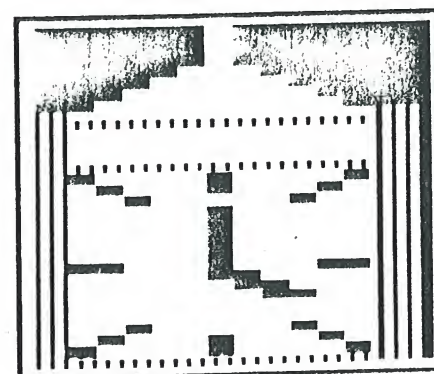
Use these keys to move the cursor:
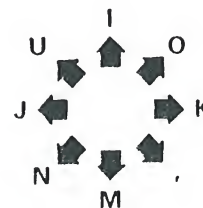
How To Draw

To draw, type D (for draw). The words "CURSOR IS MOVING" will change to "CURSOR IS DRAWING." Now use the same keys as above to move the cursor to draw.

When you are finished drawing, type D again and you will be able to move the cursor without drawing.

Choosing a Color

To choose a color, type in the number of that color from the list below.

0 — Black   5 — Blue
1 — White   6 — Red
2 — Green   7 — Yellow
3 — Purple   8 — Cyan
4 — Orange

Clearing the Shape Box

To clear the shape box, choose a color and type C. The box will fill with that color.

If you type C and then decide you don't want to fill the box with a color, just press **RETURN**. The original shape will reappear.
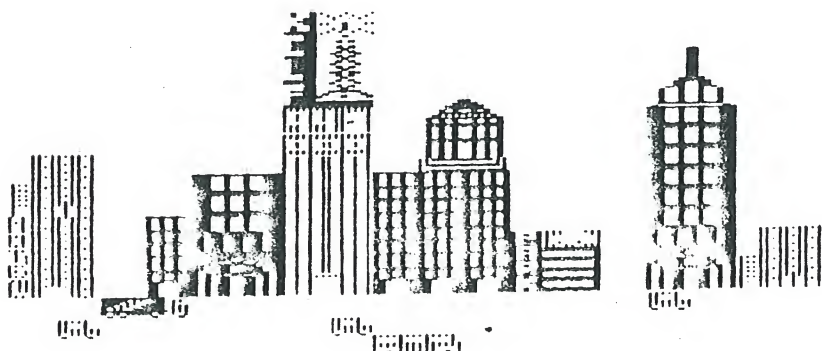
Creating New Shapes

To create your own shapes, bring a shape into the Make a Shape Room. Then clear the shape box and draw a new shape.

IMPORTANT: Once you change a shape, every other similar shape will change, too.

For example, if you change the truck to a spaceship, all the trucks in the Park and Street Room will change to spaceships. And any trucks you had already put in the Main Picture Room will also turn into spaceships.

If you change a shape and then want to change it back to its original form or color, you must redraw it, or quit "City Blocks" and start all over.

? for Help

Press **?** in the Make a Shape Room to see the list of commands for drawing and for moving the cursor, and the numbers of the colors you can draw with.
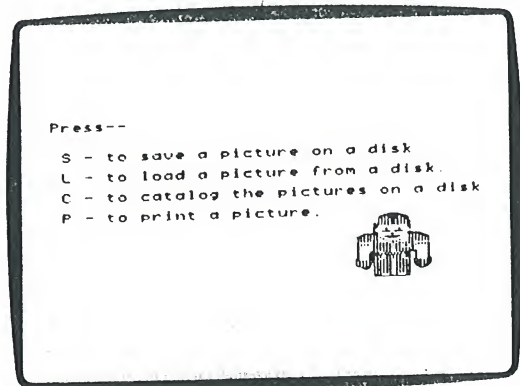
Leaving the Make A Shape Room

Press the **SPACE BAR** to leave, or quit, the Make a Shape Room. Terry will reappear with the changed shape in hand. Move Terry back into the Main Picture Room and continue building your city scene.

Save, Load, and Print Room

After you have created a scene, you can save it on a data disk so that you can load it and see it at any time. If you have a printer, you can also print scenes you have saved.

Go to the Save, Load, and Print Room, and you will be given these options: Save a picture; Load a picture; Catalog a disk; and Print a picture.

```
Press--
  S - to save a picture on a disk
  L - to load a picture from a disk.
  C - to catalog the pictures on a disk
  P - to print a picture.
```

Type the letter of the option you want, and press **RETURN**.

Save a Picture

Type S to save the picture in the Main Picture Room. The computer will tell you to put an initialized data disk in drive 1.

Then the computer will ask what you want to name the picture. Type a name up to 20 letters long. You can only use letters to name your picture. You cannot use numbers or other characters.

If you give a picture the same name you gave to another picture on the same data disk, the computer will tell you. It will not accept the same name. Choose another name.

If you don't save your picture, it will be lost when you quit "City Blocks."

If there is no room left on your data disk to save a picture, the computer will say, "This Disk Is Full. Use Another." Insert another initialized data disk in the disk drive, and press **RETURN** again.

IMPORTANT: You must save your picture to print it.

Load a Picture

To see a picture that you saved earlier, you need to load it into the computer. You will need a data disk with that picture saved on it.

Type L to load a picture. The computer will tell you to put the data disk in drive 1. Then it will ask what picture you want to load. Type in the name.

If you type in the name of a picture that is not on your data disk, the computer will say, "That Picture is Not on This Disk."
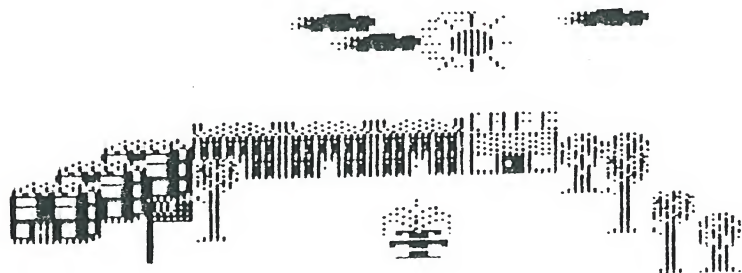
Catalog a Disk

To see a list of the pictures you have saved on the data disk, type C. The computer will tell you to put an initialized data disk in drive 1.

Press **RETURN**. The computer will show you everything you have saved on that data disk. "City Blocks" pictures will have the letters "PIC." before their name.

IMPORTANT: Do not type in the characters "PIC." when you are loading a "City Blocks" picture. Type in the name only.

For example, if you save a picture named MY CITY, and catalog your data disk, you would see: PIC.MY CITY. To load that picture, type in MY CITY only.

Press **RETURN** to get back to the Save, Load, and Print Room.
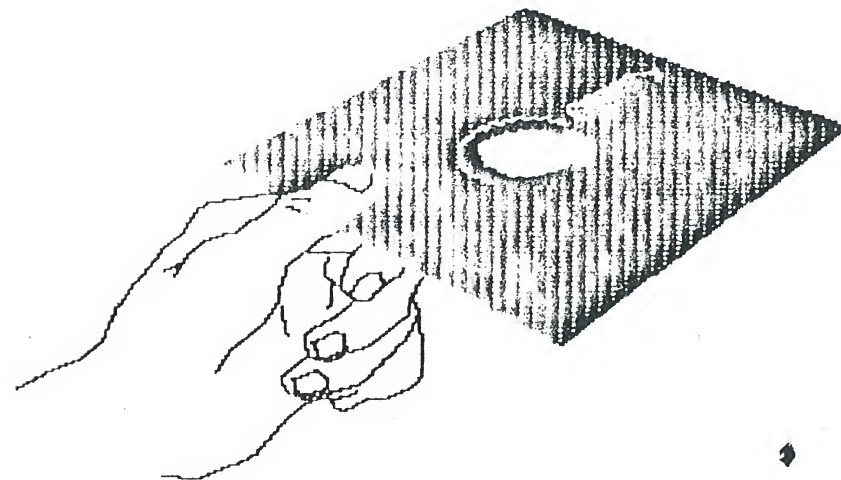
Print a Picture

To print a picture, you need to save it first on a data disk.

Make sure the picture you want to print is in the Main Picture Room. Then turn your printer on. Go to the Save, Load, and Print Room and type P to print. The picture in the Main Picture Room will then be printed out.

To print your "City Blocks" picture, you need one of three kinds of graphics cards in your printer. They are the GRAPPLER, the PKASO, or the SILENTYPE graphics cards.

To print your "City Blocks" picture, you also need your printer plugged into slot 1 of your computer.

If you do not have one of these cards, or if your printer is not plugged into slot 1 of your computer, the computer will display this message: "The printer type or slot is wrong."

If you get this message, check your graphics card and the slot your printer is plugged into.

BACK PAGE

Last, but not least, here is Back Page! You'll find letters, puzzles, and an electronic comic strip in this feature. There will be a different Back Page in each issue of *Microzine*.
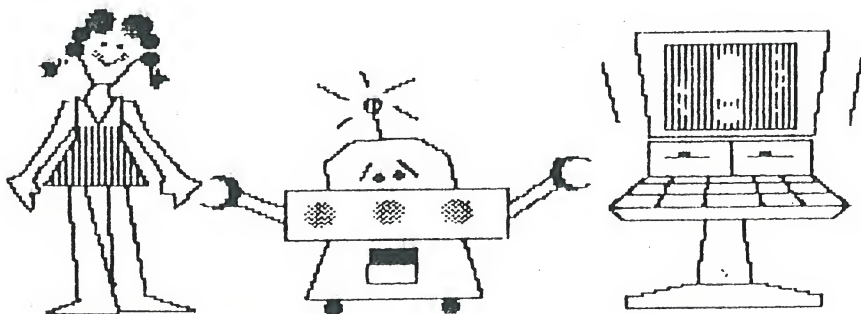
Back Page Menu

You will find these options: Letter from the Editor, Letters to the Editor, Star Scout Scramble, and Micro-Toon™.
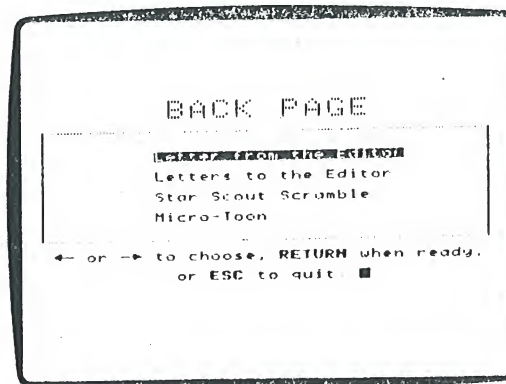
Letters to and from the Editor

The Letter from the Editor is a personal message to you! This letter contains a special request.

The Letters to the Editor are from kids across the country. Is your letter included?

Star Scout Scramble

You will need scratch paper to solve this Back Page puzzle. Copy down the scrambled words on the first screen.

Unscramble the words, then follow the directions to solve the riddle.

Micro-Toon™

Choose Micro-Toon on the menu. Press **RETURN** to change the speech balloons for Red, Dudley the robot, and Einstein the computer.
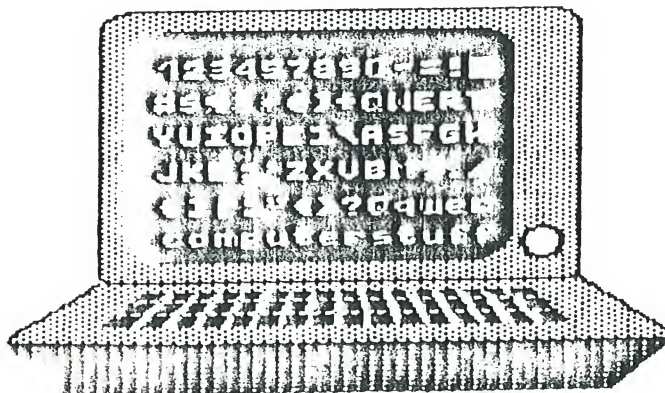
COMPUTER STUFF

Changing Number of Disk Drives

Microzine assumes you have one disk drive. If you have two, choose CHANGE DISK DRIVE SETUP. Then follow the instructions given.

If you do not know what slot number your drive is connected to, ask somebody who does know, or just press **RETURN**. The computer will then assume the answer is slot 6.

The advantage of having two drives is that when you need to use a data disk (in "City Blocks," for example) you will be able to put it in the second drive. You will not have to take the *Microzine* disk out of its drive.

If *Microzine* has been changed to assume two drives and you have only one, choose CHANGE DISK DRIVE SETUP and change back to one drive. You don't have to change the number of drives each time you use *Microzine* — it remembers.

Initializing a Data Disk

To use "Survey Taker," you need a data disk. A data disk is a blank disk (or one that you don't mind erasing) that has been initialized by *Microzine*.

Initializing a disk gets it ready to save your data for *Microzine*. The computer sets up a filing system by dividing the disk into sections, called tracks and sectors. Each brand of computer has its own filing system. For instance, a disk initialized by an Apple® can only be used on Apple computers.

To initialize the disk, take the second choice on the Computer Stuff menu. The computer will tell you that you need a blank disk, or one you don't mind erasing. Press **RETURN** and the computer will tell you to put the disk in the drive. If you're using one drive, take the *Microzine* disk out of the drive and put in your disk. If you're using two drives, just put your disk in the second drive. Then press **RETURN**.

The computer then tells you that the disk will be erased. It asks, "Do you want to go ahead? Y/N." Type Y if you do and press **RETURN**. Type N if you don't want to go ahead.

The computer tells you when the disk has been initialized. Press **RETURN**, and then put *Microzine* back in the drive. Press **RETURN** again and you will be sent back to the menu.

You now have a data disk. You can use it for "Survey Taker," "City Blocks," or any *Microzine* feature that requires a data disk.

FUNSTUFF

Brain Drain

What's Next, Star Scout?

Are you ready to become a Nova Scout? A Galaxy Scout? Write your own Twistaventure about the revenge of Pnowo Ledge, and how you defeat him and advance to the next Scout rank.

Barnacans Just Want To Have Fun

Space rocker Rocky Rocardo needs "friendship mission" songs for his next album. Write him song lyrics that are out of this world. If you have the *Microzine* that includes "Melody Maker," use that feature to compose the music. Then draw a picture of Rocky's next album cover.

Wise Guys

First there was Socrates, then Einstein, and now Budanoy. Draw a picture of what Budanoy looks like. Write a story explaining what makes him so wise.

Dogat & Co.

Draw a picture of an interplanetary zoo filled with creatures that are combinations of two different Earth animals. Create a "cowakeet" or a "sharkaroo."

Mind Find

You think; therefore, you are! Make a list of the information Pnowo Ledge would find if he drained your brain.

Survey Taker

Survey Starter-Set

Every autumn, surveys are taken to see which of the new fall TV shows viewers are watching. Take your own survey of what new shows your friends watch. Update the survey every few weeks. See if the shows your friends like match the TV shows that are hits and see how your friends felt about the shows that were canceled.

Poll your friends every week to see what their favorite songs are on the radio. Write and distribute your own weekly Top Ten Song List.

Use "Survey Taker" for class elections. How do your classmates feel about the election issues? Is homeroom too long? What kind of food should be served in the cafeteria? How many students are interested in school sports?

WHICH MICROZINE FEATURE
DO YOU LIKE BEST?

A. BRAIN DRAIN
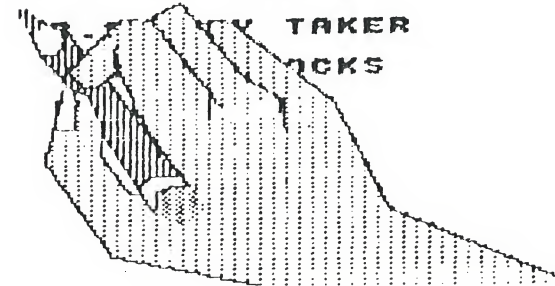
City Blocks

Microtropolis

Name an imaginary city you've built with ''City Blocks.'' Write a short description of the geography and history of your city.

Small Beginnings

Create a small town and print it. Next, add a few tall buildings and make a second printout. Then fill your town with skyscrapers and make another printout. You now have a record of how a small town grew into a major city.

Night Life

Create the skyline of a city at night. Put a shape in the Make a Shape Room. Clear the picture with the color BLACK (0). Change the cursor color to WHITE (1), and draw in small squares to represent a building's lighted windows. Put the building in the Main Picture Room, pick up another shape, and create a new, nighttime building.

Once you have created your skyline, put the sun shape (located in the Park and Street Room) in the Make a Shape Room. Change the color back to BLACK and erase the sun's rays by drawing over them. You now have a full moon to hang over your midnight city.